

**CLAIMS**

1. A medical tool comprising a central body having an in vivo inserted end and a non inserted end, said in vivo inserted end including at least one functional element and at least one sensing unit.
2. The tool according to claim 1 wherein the non inserted end includes a controller, said controller functionally coupled to the functional element.
3. The tool according to claim 1, said tool including silicon, plastic or metal.
4. The tool according to claim 1 wherein the functional element comprises one or more elements selected from the group consisting of: graspers, blades, clamps, tissue collecting baskets, means for delivering treatment, stents, forceps, snares, hemostasis devices, dilatation balloons, catheters, sphincterotomes, guidwires and suturing devices.
5. The tool according to claim 1 wherein the sensing unit comprises at least one sensor selected from the group consisting of: image sensors, pH meters, pressure detectors, temperature sensors.
6. The tool according to claim 1 comprising at least one illumination source.
7. The tool according to claim 6 wherein the illumination source is an LED.
8. The tool according to claim 1 comprising a transmitter.

9. The tool according to claim 8 wherein the transmitter is a wireless transmitter.
10. The tool according to claim 8 wherein the transmitter is an RF transmitter.
11. The tool according to claim 1 comprising a channel.
12. The tool according to claim 11 wherein the channel passes through at least the central body.
13. A medical tool comprising
  - at least one functional element;
  - a controller functionally coupled to the functional element; and
  - at least one imaging unit.
14. The tool according to claim 13 wherein the functional element comprises one or more elements selected from the group consisting of: graspers, blades, clamps, tissue collecting baskets, means for delivering treatment, stents, forceps, snares, hemostasis devices, dilatation balloons, catheters, sphincterotomes, guidwires and suturing devices.
15. The tool according to claim 13 wherein the imaging unit comprises:
  - at least one image sensor; and
  - at least one illumination source.
16. The tool according to claim 13 comprising a transmitter.

17. The tool according to claim 13 wherein the transmitter is a wireless transmitter.

18. A system for performing in vivo procedures, said system comprising:

    a device comprising a central body having an in vivo inserted end and a non inserted end, said in vivo inserted end including at least one functional element and at least one sensing unit.;

    a transmitter in communication with the in vivo sensor;  
    and

    a receiver.

19. The system according to claim 18 comprising a monitor in communication with the receiver for displaying in vivo information.

20. The system according to claim 18 comprising a processor for processing in vivo information.